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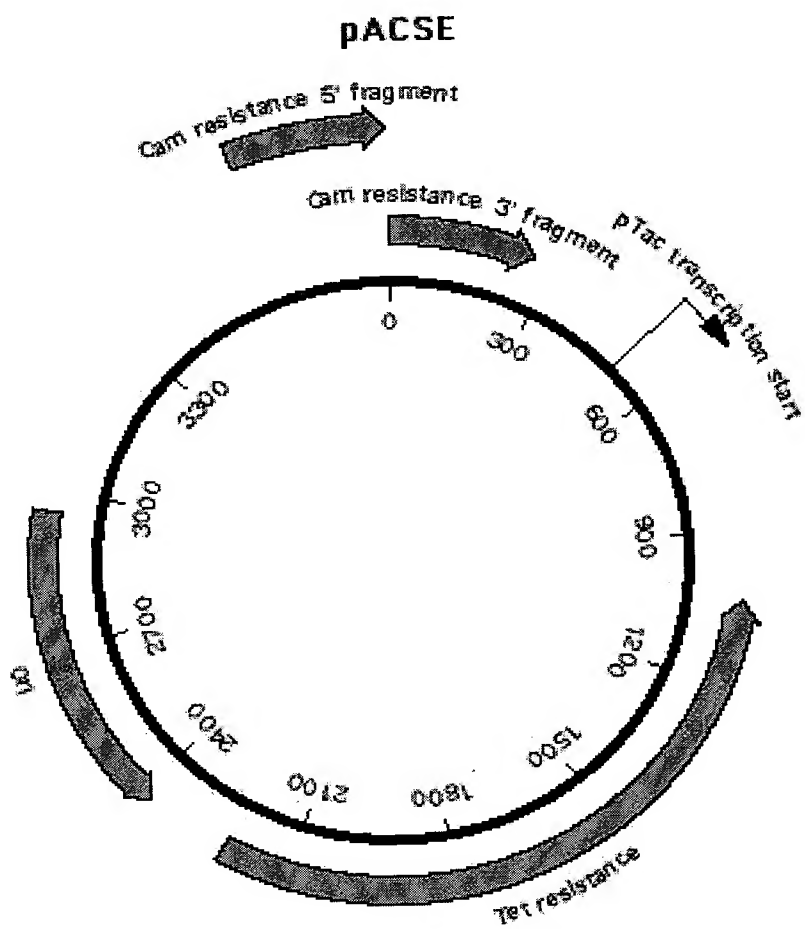


Figure 1

1	CGTATGGCAA	TGAAAGACGG	TGAGCTGGTG	ATATGGGATA	GTGTTACACC	TTGTTACACC
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121	CGGCAGTTTC	TACACATATA	TTCGCAAGAT	GTGGCGTGTT	ACGGTGAAAA	CCTGGCCTAT
181	TTCCCTAAAG	GGTTTATTGA	GAATATGTTT	TTCGTCTCAG	CCAATCCCTG	GCTGAGTTTC
241	ACCAGTTTTG	ATTTAAACGT	GGCCATCATG	TTTGACAGCT	TATCATCGAC	TGCACGGTGC
301	ACCAATGCTT	CTGGCGTCAG	GCAGCCATCG	GAAGCTGTGG	TATGGCTGTG	CAGGTCGTAA
361	ATCACTGCAT	AATTCGTGTC	GCTCAAGGCG	CACTCCCGTT	CTGGATAATG	TTTTTTGCGC
421	CGACATCATA	ACGGTTCTGG	CAAATATTCT	GAAATGAGCT	GTTGACAATT	AATCATCCGG
481	CTCGTATAAT	GTGTGGAATT	GTGAGCGGAT	AACAATTTCA	CACAGGAAAC	AGACCATGGC
541	TGGTGACCAC	GTCGTGGAAT	GCCTTCGAAT	TCAGCACCTG	CACATGGGAC	GTCGACCTGA
601	GGTAATTATA	ACCCGGGCCC	TATATATGGA	TCCAATTGCA	ATGATCATCA	TGACAGATCT
661	GCGCGCGATC	GATATCAGCG	CTTTAAATTT	GCGCATGCTA	GCTATAGTTC	TAGAGGTACC
721	GGTTGTAAAC	GTTAGCCGGC	TACGTATACT	CCGGAATATT	AATAGGCCTA	GGATGCATAT
781	GGCGGCCGCG	TGCAGCTGGC	GCCATCGATA	CGCGTACGTC	GCGACCGCGG	ACATGTACAG
841	AGCTCGAGAA	GTACTAGTGG	CCAGGACCCA	ACGCTGCCCC	AGATGCGCCG	CGTGCGGCTG
901	CTGGAGATGG	CGGACGCGAT	GGATATGTTT	TGCCAAGGGT	TGGTTTGCGC	ATTACAGATT
961	CTCCGCAAGA	ATTGATTGGC	TCCAATTCTT	GGAGTGGTGA	ATCCGTTAGC	GAGGTGCCGC
1021	CGGCTTCCAT	TCAGGTCGAG	GTGGCCCCGG	TCCATGCACC	GCGACGCAAC	GCGGGGAGGC
1081	AGACAAGGTA	TAGGGCGGCG	CCTACAATCC	ATGCCAACCC	GTTCCATGTG	CTCGCCGAGG
1141	CGGCATAAAT	CGCCGTGACG	ATCAGCGGTC	CAGTGATCGA	AGTTAGGCTG	GTAAGAGCCG
1201	CGAGCGATCC	TTGAAGCTGT	CCCTGATGGT	CGTCATCTAC	CTGCCTGGAC	AGCATGGCCT
1261	GCAACGCGGG	CATCCCGATG	CCGCCGGAAG	CGAGAAGAAT	CATAATGGGG	AAGGCCATCC
1321	AGCCTCGCGT	CGCGAACGCC	AGCAAGACGT	AGCCCAGCGC	GTCGGCCGCC	ATGCCGCGCA
1381	TAATGGCCTG	CTTCTCGCCG	AAACGTTTGG	TGGCGGGACC	AGTGACGAAG	GCTTGAGCGA
1441	GGGCGTGCAA	GATTCCGAAT	ACCGCAAGCG	ACAGGCCGAT	CATCGTCGCG	CTCCAGCGAA
1501	AGCGGTCTCT	GCCGAAAATG	ACCCAGAGCG	CTGCCGGCAC	CTGTCTTACG	AGTTGCATGA
1561	TAAAGAAGAC	AGTCATAAGT	GCGGCGACGA	TAGTCATGCC	CCGCGCCAC	CGGAAGGAGC
1621	TGACTGGGTT	GAAGGCTCTC	AAGGGCATCG	GTCGACGCTC	TCCCTTATGC	GACTCCTGCA
1681	TTAGGAAGCA	GCCCAGTAGT	AGGTTGAGGC	CGTTGAGCAC	CGCCGCCGCA	AGGAATGGTG
1741	CATGCAAGGA	GATGGCGCCC	AACAGTCCCC	CGGCCACGGG	GCCTGCCACC	ATACCCACGC
1801	CGAAACAAGC	GCTCATGAGC	CCGAAGTGGC	GAGCCCGATC	TTCCCCATCG	GTGATGTCGG
1861	CGATATAGGC	GCCAGCAACC	GCACCTGTGG	CGCCGGTGAT	GCCGGCCACG	ATGCGTCCGG
1921	CGTAGAGGAT	CCACAGGACG	GGTGTGGTCG	CCATGATCGC	GTAGTCGATA	GTGGCTCCAA
1981	GTAGCGAAGC	GAGCAGGACT	GGGCGGCGGC	CAAAGCGGTC	GGACAGTGCT	CCGAGAACGG
2041	GTGCGCATAG	AAATTGCATC	AACGCATATA	GCGCTAGCAG	CACGCCATAG	TGACTGGCGA
2101	TGCTGTCGGA	ATGGACGATA	TCCCGCAAGA	GGCCCCGGCAG	TACCGGCATA	ACCAAGCCTA
2161	TGCCTACAGC	ATCCAGGGTG	ACGGTGCCGA	GGATGACGAT	GAGCGCATTG	TTAGATTTCA
2221	TACACGGTGC	CTGACTGCGT	TAGCAATTTA	ACTGTGATAA	ACTACCGCAT	TAAAGCTTAT
2281	CGATGATAAG	CTGTCAAACA	TGAGAATTAC	AACTTATATC	GTATGGGGCT	GACTTCAGGT
2341	GCTACATTTG	AAGAGATAAA	TTGCACTGAA	ATCTAGAAAT	ATTTTATCTG	ATTAATAAGA
2401	TGATCTTCTT	GAGATCGTTT	TGGTCTGCGC	GTAATCTCTT	GCTCTGAAAA	CGAAAAAACCC
2461	GCCTTGACAG	GCGGTTTTTC	GAAGGTTCTC	TGAGCTACCA	ACTCTTTGAA	CCGAGGTAAC
2521	TGGCTTGAGG	GAGCGCAGTC	ACCAAAACTT	GTCTTTTCAG	TTTAGCCTTA	ACCGGCGCAT
2581	GACTTCAAGA	CTAACTCCTC	TAAATCAATT	ACCAGTGGCT	GCTGCCAGTG	GTGCTTTTGC
2641	ATGTCTTTCC	GGGTTGGACT	CAAGACGATA	GTTACCGGAT	AAGGCGCAGC	GGTCGGACTG
2701	AACGGGGGGT	TCGTGCATAC	AGTCCAGCTT	GGAGCGAACT	GCCTACCCGG	AACTGAGTGT
2761	CAGGCGTGGA	ATGAGACAAA	CGCGGCCATA	ACAGCGGAAT	GACACCGGTA	AACCGAAAGG
2821	CAGGAACAGG	AGAGCGCACG	AGGGAGCCGC	CAGGGGGAAA	CGCCTGGTAT	CTTTATAGTC
2881	CTGTGCGGTT	TCGCCACCAC	TGATTTGAGC	GTCAGATTTT	GTGATGCTTG	TCAGGGGGGC
2941	GGAGCCTATG	GAAAAACGGC	TTTGCCGCGG	CCCTCTCACT	TCCCTGTTAA	GTATCTTCTT

Figure 2A

3001 GGCATCTTCC AGGAAATCTC CGCCCCGTTT GTAAGCCATT TCCGCTCGCC GCAGTCGAAC
 3061 GACCGAGCGT AGCGAGTCAG TGAGCGAGGA AGCGGAATAT ATCCTGTATC ACATATTCTG
 3121 CTGACGCACC GGTGCAGCCT TTTTCTCCT GCCACATGAA GCACTTCACT GACACCCTCA
 3181 TCAGTGCCAA CATAGTAAGC CAGTATACAC TCCGCTAGCG CTGATGTCCG GCGGTGCTTT
 3241 TGCCGTTACG CACCACCCCG TCAGTAGCTG AACAGGAGGG ACAGCTGATA GAAACAGAAG
 3301 CCACTGGAGC ACCTCAAAAA CACCATCATA CACTAAATCA GTAAGTTGGC AGCATCACCC
 3361 GACGCACTTT GCGCCGAATA AATACCTGTG ACGGAAGATC ACTTCGCAGA ATAAATAAAT
 3421 CCTGGTGTCC CTGTTGATAC CGGGAAGCCC TGGGCCAACT TTTGGCGAAA ATGAGACGTT
 3481 GATCGGCACG TAAGAGGTTT CAACTTTCAC CATAATGAAA TAAGATCACT ACCGGGCGTA
 3541 TTTTTTGAGT TATCGAGATT TTCAGGAGCT AAGGAAGCTA AAATGGAGAA AAAAATCACT
 3601 GGATATACCA CCGTTGATAT ATCCCAATGG CATCGTAAAG AACATTTTGA GGCATTTTCA
 3661 TCAGTTGCTC AATGTACCTA TAACCAGACC GTTCAGCTGG ATATTACGGC CTTTTTAAAG
 3721 ACCGTAAAGA AAAATAAGCA CAAGTTTTAT CCGGCCTTTA TTCACATTCT TGCCCGCCTG
 3781 ATGAATGCTC ATCCGGAATT C

Figure 2B

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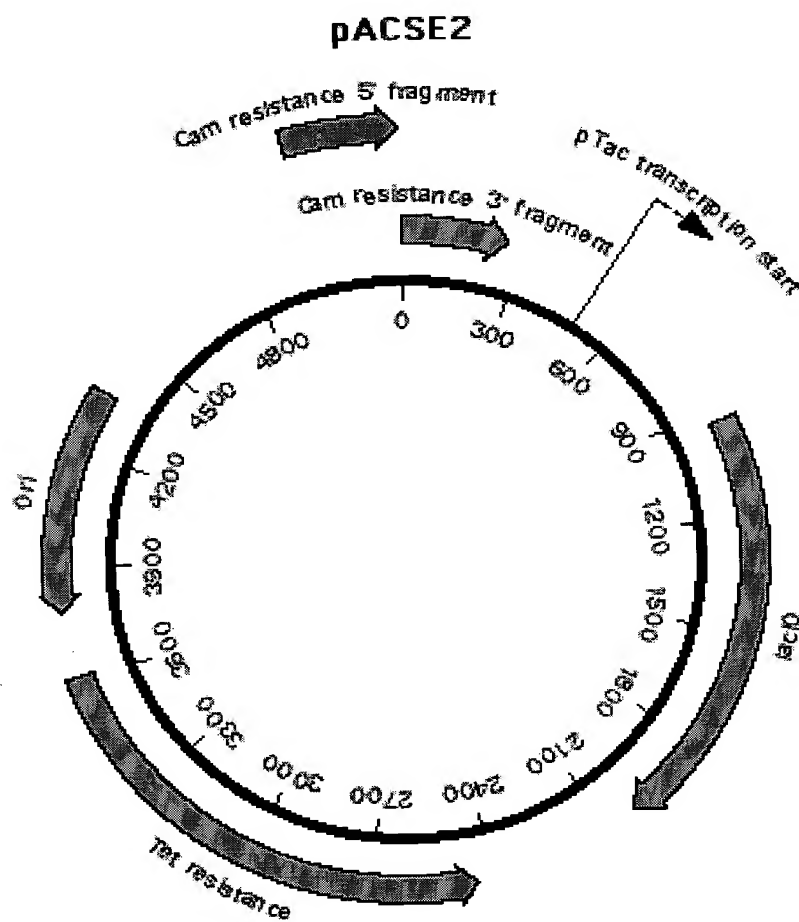


Figure 3

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121 CGGCAGTTTC TACACATATA TTCGCAAGAT GTGGCGTGTT ACGGTGAAAA CCTGGCCTAT
181 TTCCCTAAAG GGTTTATTGA GAATATGTTT TTCGTCTCAG CCAATCCCTG GGTGAGTTTC
241 ACCAGTTTTG ATTTAAACGT GGCCATCATG TTTGACAGCT TATCATCGAC TGCACGGTGC
301 ACCAATGCTT CTGGCGTCAG GCAGCCATCG GAAGCTGTGG TATGGCTGTG CAGGTCGTAA
361 ATCACTGCAT AATTTCGTGTC GCTCAAGGCG CACTCCCCTT CTGGATAATG TTTTTTGC GC
421 CGACATCATA ACGGTTCTGG CAAATATTCT GAAATGAGCT GTTGACAATT AATCATCCGG
481 CTCGTATAAT GTGTGGAATT GTGAGCGGAT AACAATTTCA CACAGGAAAC AGACCATGGC
541 TGGTGACCAC GTCGTGGAAT GCCTTCGAAT TCAGCACCTG CACATGGGAC GTCGACCTGA
601 GGTAATTATA ACCCGGGCCC TATATATGGA TCCAATTGCA ATGATCATCA TGACAGATCT
661 GCGCGCGATC GATATCAGCG CTTTAAATTT GCGCATGCTA GCTATAGTTC TAGAGGTACC
721 GGTTGTTAAC GTTAGCCGGC TACGTATACT CCGGAATATT AATAGGCCTA GGATGCATAT
781 GCGGCGCGCC TGCAGCTGGC GCCATCGATA CGCGTACGTC GCGACCGCGG ACATGTACAG
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901 GGCATGATAG CGCCCGGAAG AGAGTCAATT CAGGGTGGTG AATGTGAAAC CAGTAACGTT
961 ATACGATGTC GCAGAGTATG CCGGTGTCTC TTATCAGACC GTTTCCTCGC TGGTGAACCA
1021 GGCCAGCCAC GTTCTGCGA AAACGCGGGA AAAAGTGGAA GCGGCGATGG CCGAGCTGAA
1081 TTACATTCCC AACCGCGTGG CACAACAAC TGGCGGCAAA CAGTCGTTGC TGATTGGCGT
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1561 TCGCAATCAA ATTCAGCCGA TAGCGGAACG GGAAGGCGAC TGGAGTGCCA TGTCGGTTTT
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1921 AAAAACCACC CTGGCGCCCA ATACGCAAAC CGCCTCTCCC CGCGCGTTGG CCGATTTCATT
1981 AATGCAGCTG GCACGACAGG TTTCCCGACT GGAAAGCGGG CAGTGAGCGC AACGCAATTA
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2881 CATCGTCGCG CTCCAGCGAA AGCGGTCTC GCGGAAAATG ACCCAGAGCG CTGCCGGCAC
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Figure 4A

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 4201 GACACCGGTA AACC GAAAGG CAGGAACAGG AGAGCGCACG AGGGAGCCGC CAGGGGGAAA
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 5101 ATATTACGGC CTTTTTAAAG ACCGTAAAGA AAAATAAGCA CAAGTTTTAT CCGGCCTTTA
 5161 TTCACATTCT TGCCGCGCTG ATGAATGCTC ATCCGGAATT C

Figure 4B

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1621 TCAACAAACC ATGCAAATGC TGAATGAGGG CATCGTTCCC ACTGCGATGC TGGTTGCCAA
1681 CGATCAGATG GCGCTGGGCG CAATGCGCGC CATTACCGAG TCCGGGCTGC GCGTTGGTGC
1741 GGATATCTCG GTAGTGGGAT ACGACGATAC CGAAGACAGC TCATGTTATA TCCCGCCGTC
1801 AACCACCATC AAACAGGATT TTCGCCTGCT GGGGCAAACC AGCGTGGACC GCTTGCTGCA
1861 ACTCTCTCAG GGCCAGGCGG TGAAGGGCAA TCAGCTGTTG CCCGTCTCAC TGGTGAAGAA
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1981 AATGCAGCTG GCACGACAGG TTTCCCGACT GGAAAGCGGG CAGTGAGCGC AACGCAATTA
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Figure 5A

3001 CCGCGCCAC CGGAAGGAGC TGAAGGCTCTC AAGGGCATCG GTCGACGCTC
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 4621 CTGATGTCCG GCGGTGCTTT TGCCGTTACG CACCACCCCG TCAGTAGCTG AACAGGAGGG
 4681 ACAGCTGATA GAAACAGAAG CCACTGGAGC ACCTCAAAAA CACCATCATA CACTAAATCA
 4741 GTAAGTTGGC AGCATCACCC GACGCACTTT GCGCCGAATA AATACCTGTG ACGGAAGATC
 4801 ACTTCGCAGA ATAAATAAAT CCTGGTGTCC CTGTTGATAC CGGGAAGCCC TGGGCCAACT
 4861 TTTGGCGAAA ATGAGACGTT GATCGGCACG TAAGAGGTTT CAACTTTCAC CATAATGAAA
 4921 TAAGATCACT ACCGGGCGTA TTTTTTGAGT TATCGAGATT TTCAGGAGCT AAGGAAGCTA
 4981 AAATGGAGAA AAAAATCACT GGATATACCA CCGTTGATAT ATCCCAATGG CATCGTAAAG
 5041 AACATTTTGA GGCATTTTCA TCAGTTGCTC AATGTACCTA TAACCAGACC GTTCAGCTGG
 5101 ATATTACGGC CTTTTTAAAG ACCGTAAAGA AAAATAAGCA CAAGTTTTAT CCGGCCTTTA
 5161 TTCACATTCT TGCCCGCCTG ATGAATGCTC ATCCGGAATT C

Figure 5B

09640822-081800

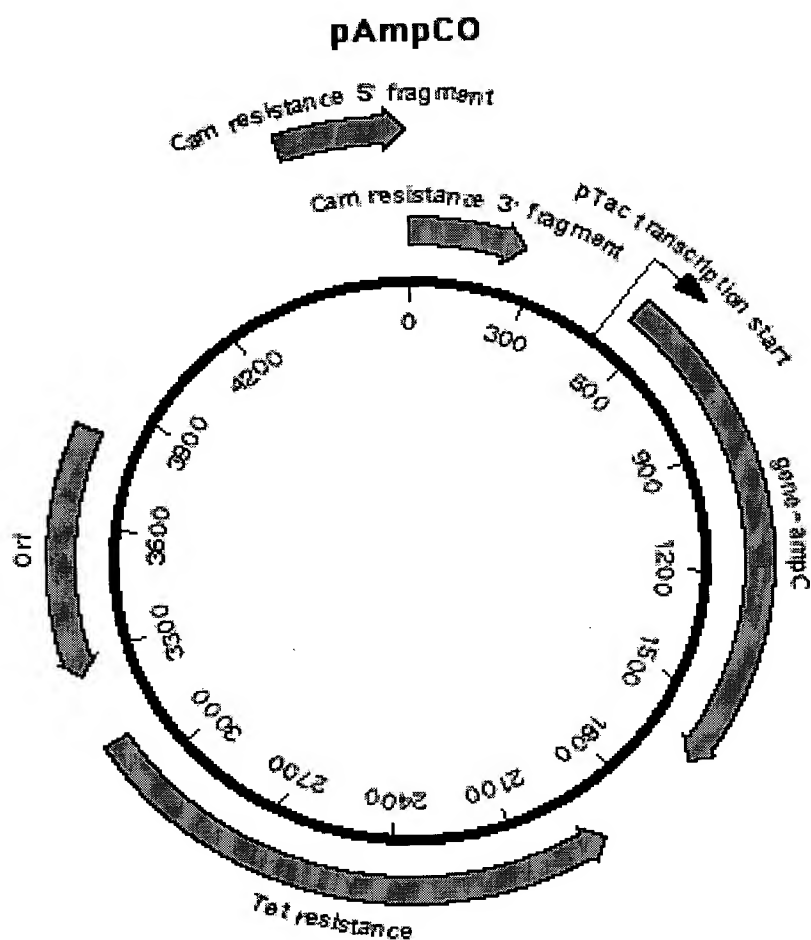


Figure 6

09640882.081.800

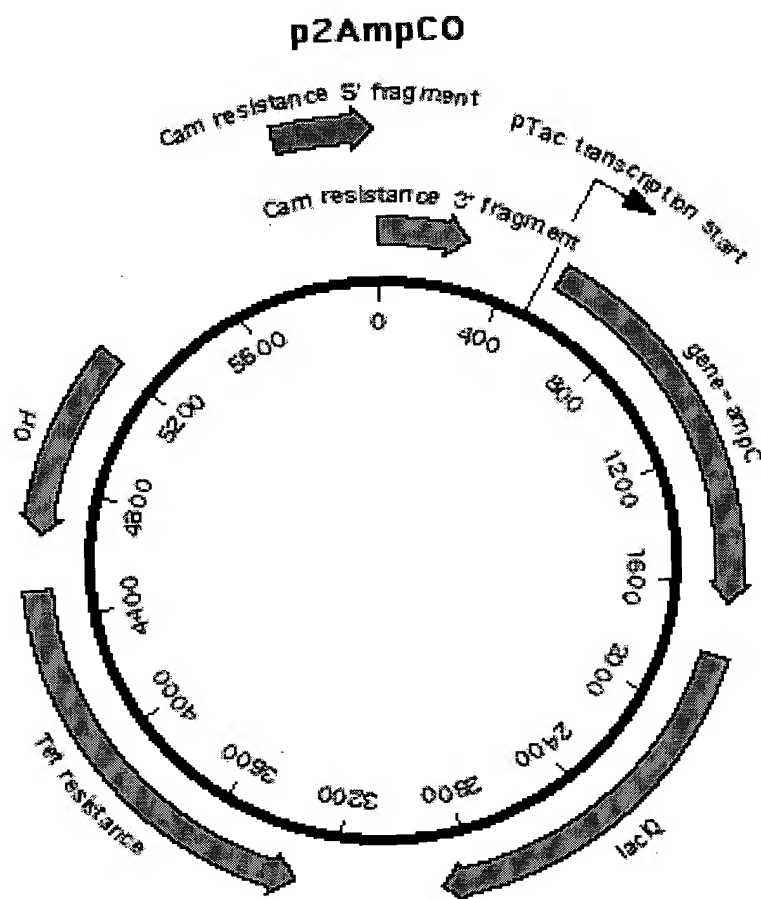


Figure 7

wild-type	ATGGTCAAAA	CGACGCTCTG	CGCCTTATTA	ATTACCGCCT	CTTGCTCCAC	ATTTGCTGCC	60
AmpC13A	.....	.....	....C.....	.....	.....	.....
AmpC41A	.....	.....	....C.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	CCTCAACAAA	TCAACGATAT	TGTGCATCGC	ACAATTACCC	CGCTTATAGA	GCAACAAAAG	120
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	ATCCCGGGTA	TGGCGGTGGC	GGTAATTTAT	CAGGGTAAAC	CTTATTACTT	TACCTGGGGC	180
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	TATGCGGACA	TCGCCAAAAA	GCAGCCCGTC	ACACAGCAAA	CGTTGTTTGA	GTTAGGTTTCG	240
AmpC13A	.....	....T.....	.....	.....	.....	.....
AmpC41A	.....	....T.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	GTCAGCAAAA	CATTTACTGG	CGTGCTTGGT	GGCGACGCTA	TTGCTCGAGG	GGAAATCAAG	300
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	TTAAGCGATC	CCACAACAAA	ATACTGGCCT	GAACCTACCG	CTAAACAGTG	GAATGGGATC	360
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	ACACTATTAC	ATCTCGCAAC	CTACACTGCT	GGCGGCCTGC	CATTGCAGGT	GCCGGATGAG	420
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	T.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	GTGAAATCCT	CAAGCGACTT	GCTGCGCTTC	TATCAAAACT	GGCAGCCTGC	ATGGGCTCCA	480
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	GGAACACAAC	GTCTGTATGC	CAACTCCAGT	ATCGGTTTGT	TCGGCGCACT	GGCTGTGAAG	540
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	CCGTCTGGTT	TGAGTTTTGA	GCAGGCGATG	CAAACCTCGTG	TCTTCCAGCC	ACTCAAACCTC	600
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....G.....	.....
wild-type	AACCATACGT	GGATTAATGT	ACCGCCCGCA	GAAGAAAAGA	ATTACGCCTG	GGGATATCGC	660
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....

Figure 8A

wild-type	GAAGGTAAGG	CAGTGCATGT	TTCGCCTGGG	GCGTTAGATG	CTGAAGCTTA	TGGTGTGAAG	720
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	..G.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.C.....	.....
wild-type	TCGACCATTG	AAGATATGGC	CCGCTGGGTG	CAAAGCAATT	TAAAACCCCT	TGATATCAAT	780
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	GAGAAAACGC	TTCAACAAGG	GATACAACTG	GCACAATCTC	GCTACTGGCA	AACCGGCGAT	840
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	ATGTATCAGG	GCCTGGGCTG	GGAAATGCTG	GACTGGCCGG	TAAATCCTGA	CAGCATCATT	900
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....G.	.....G.	.....	.....
wild-type	AACGGCAGTG	ACAATAAAAT	TGCACTGGCA	GCACGCCCCG	TAAAAGCGAT	TACGCCCCCA	960
AmpC13A	.....C..	.....	.....	.....	.....	.....
AmpC41A	.....C..	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	ACTCCTGCAG	TACGCGCATC	ATGGGTACAT	AAAACAGGGG	CGACCGGCGG	ATTTGGTAGC	1020
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	TATGTCGCGT	TTATTCCAGA	AAAAGAGCTG	GGTATCGTGA	TGCTGGCAAA	CAAAAATAT	1080
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	CCCAATCCAG	CGAGAGTCGA	CGCCGCCTGG	CAGATTCTTA	ACGCTCTACA	GTAA	1134
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	....C....	.....
AmpC21B	.....	.....	.....	.....	.....	.....

Figure 8B

wild-type	MVKTTLCALL	ITASCSTFAA	PQQINDIVHR	TITPLIEQQK	IPGMAVAVIY	QGKPYFTWG	60
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	YADIAKKQPV	TQQTLEFELGS	VSKTFTGVLG	GDAIARGEIK	LSDPTTKYWP	ELTAKQWNGI	120
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	TLLHLATYTA	GGLPLQVPDE	VKSSDLLRF	YQNWQPAWAP	GTQRLYANSS	IGLFGALAVK	180
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	S.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	PSGLSFEQAM	QTRVFQPLKL	NHTWINVPPA	EEKNYAWGYR	EGKAVHVSPG	ALDAEAYGVK	240
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....R.....	.....	.....	.....	.....
wild-type	STIEDMARWV	QSNLKPLDIN	EKTLQQGIQL	AQSRYWQTGD	MYQGLGWEML	DWPVNPDSII	300
AmpC13A	.....	.....	.....	.....	.....	.....
AmpC41A	.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....R.....	.....S.....	
wild-type	NGSDNKIALA	ARPVKAITPP	TPAVRASWVH	KTGATGGFGS	YVAFIPEKEL	GIVMLANKNY	360
AmpC13A	..R.....	.....	.....	.....	.....	.....
AmpC41A	..R.....	.....	.....	.....	.....	.....
AmpC21B	.....	.....	.....	.....	.....	.....
wild-type	PNPARVDAAW	QILNALQ*					377
AmpC13A	.....	.....			
AmpC41A	.....	.....			
AmpC21B	.....	.....			

Figure 9

003T30" 23304960

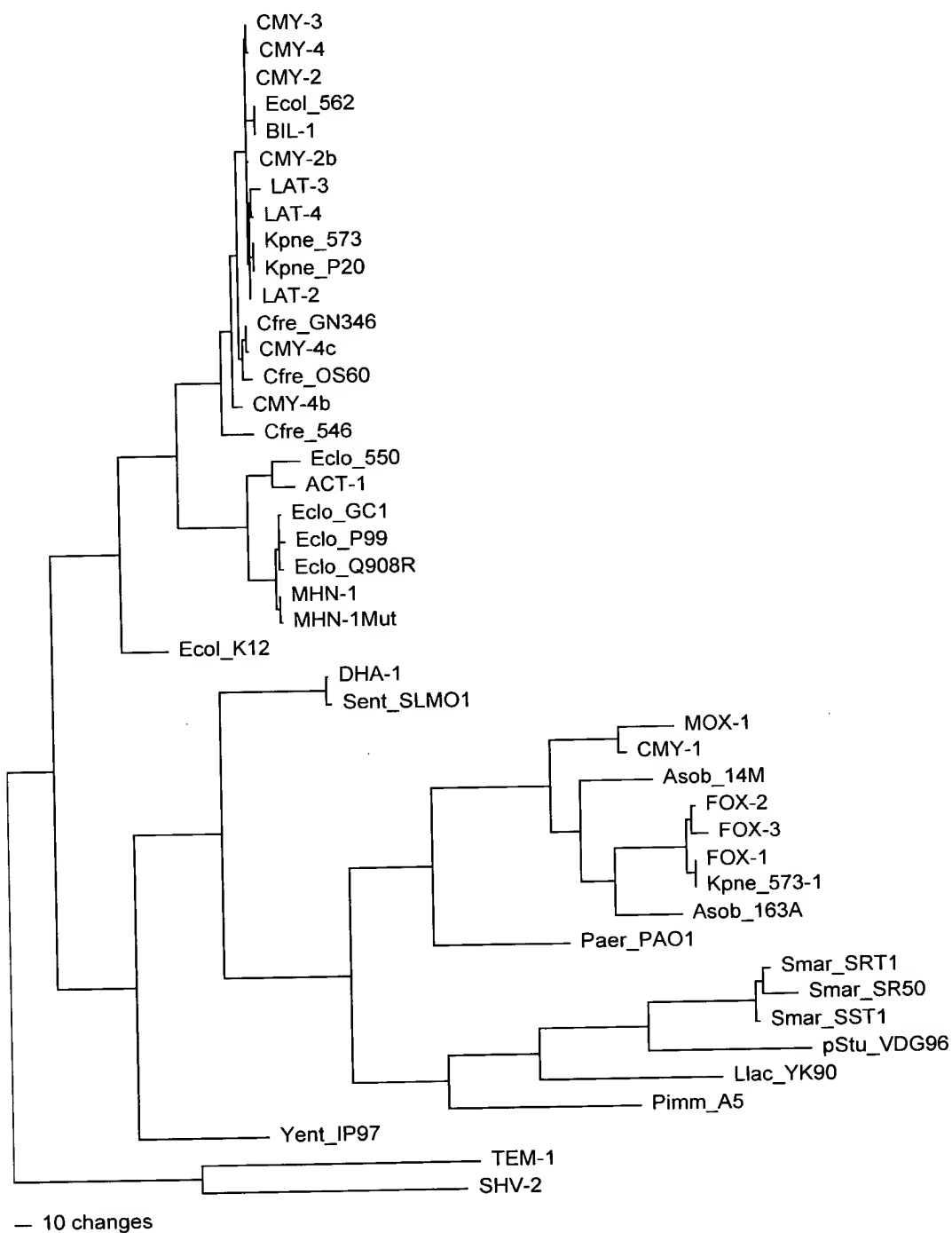


Figure 10

Citrobacter freundii
Numbers are the number of
amino acid replacements
along that branch

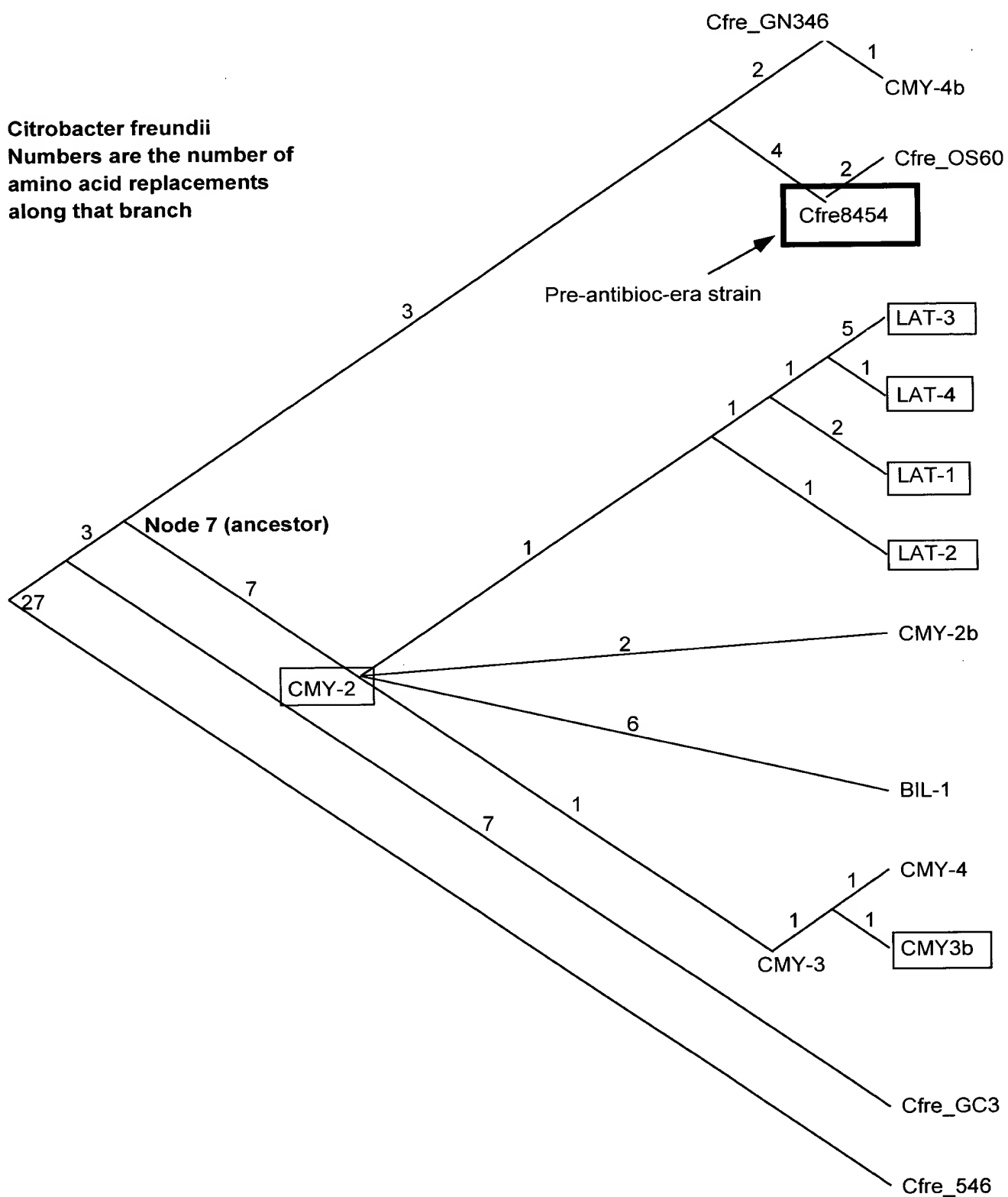


Figure 11